

MATERIAL SAFETY DATA SHEET

Canadian Center for Occupational Health and Safety

This format is consistent with WHMIS schedule I, column III, and ANSI Z400.1-2004 standard for preparation of MSDS's in accordance with Globally Harmonized System of Classification and Labelling of Chemicals, as well as OSHA's Hazard Communication Standard, 29 CFR 1910. 1200.

M U L T I - M I X[®] M M - 6 0 0 0

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Identifier Multi-Mix[®] MM-6000

1.2. Manufacture **Circul-Aire Inc.**
3999 Cote Vertu
Montreal, Quebec
Canada H4R 1R2
Telephone No.: 514-337-3331
Fax No.: 514-336-3023

1.3. Supplier Identifier **Circul-Aire Inc.**
3999 Cote Vertu
Montreal, Quebec
Canada H4R 1R2
Telephone No.: 514-337-3331
Fax No.: 514-336-3023

1.4. Emergency telephone number
514-337-3331
Canutec (Canada): 1 (613) 996-6666 (24 hours)
Or *666 on a cellular phone

1.5. Product use Gas-phase air filtration

SECTION 2: HAZARDS IDENTIFICATION

2.1. Regulatory status

Canadian WHMIS classification: Class E - Corrosive material



NFPA Rating: (scale 0-4)

Health: 2

Fire: 1

Reactivity: 0

HMIS Rating: (scale 0-4)

Health: 2

Flammability: 1

Reactivity: 0

Medical conditions aggravated by exposure: People with pre-existing skin conditions or eye problems or impaired respiratory function may be more susceptible to the potential effects of the dust.

Routes of Exposure:

Eyes: May be corrosive, may cause physical irritation.
Skin: May be corrosive. Irritation is possible due to corrosive and abrasive action of dust.
Ingestion: May cause burning to mouth, throat and esophagus.
Inhalation: Possible irritation of respiratory tract due to corrosive, drying and abrasive action of dust.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Composition:

Ingredients (Component)	Approximate Concentration %wt	CAS NA or UN Numbers	LD ₅₀ /LC ₅₀ Specify Species & Route
Calcium Hydroxide	50-100	1305-62-0	LD ₅₀ 7340mg/kg Oral-RAT
Potassium Hydroxide	2-5	1310-58-3	LD ₅₀ 365 mg/kg Oral-RAT
Sodium Hydroxide	0.1-2	1310-73-2	LD ₅₀ 2000 mg/kg Oral-RAT

SECTION 4: FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person

4.1. Description of first aid measures

In the event of exposure by inhalation:

Move the affected person away from the contaminated area and into fresh air. Seek medical attention for any breathing difficulty.

In the event of splashes or contact with eyes:

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open. Seek medical attention.

In the event of contact with skin:

Watch out for any remaining product between skin and clothing, watches, shoes, etc. Rinse with plenty of water. Seek medical attention.

In the event of swallowing:

Do not induce vomiting, wash out mouth with plenty of water. Seek medical attention, showing the label.

4.2. Most important symptoms and effects, both acute and delayed

The main symptoms and effects known are described in the label and/or in section 11.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable methods of extinction: Use an extinguishing media suitable for surrounding fire.

Unsuitable methods of extinction: None to our knowledge.

5.2. Special hazards arising from the substance or mixture

No further relevant information available.

5.3. Firefighting equipment

Fire fighting personnel should wear full protective equipment, including self-contained breathing apparatus for all inside fires and large outdoor fires.

5.4. Additional information

Collect contaminated water separately. It must not enter the sewage system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

Ensure adequate ventilation.

Wear protective equipment, keep unnecessary personnel away, and ventilate area of spill.

For fire-fighters

Fire-fighters will be equipped with NIOSH approved self-contained breathing apparatus suitable for the surrounding fire.

6.2. Environmental precautions

Do not allow to enter sewers/surface or ground water.

6.3. Methods and material for containment and cleaning up

Ensure adequate ventilation.

Contain and/or absorb spill with inert material (i.e. sand, vermiculite) then place in a suitable container.

Sweep up spilled product into receptacles.

Dispose contaminated material as waste according to section 13 of the MSDS.

6.4. Reference to other sections

See section 7 on safe handling.
 See section 8 on personal protection equipment.
 See section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

Requirements relation to storage premises apply to all facilities where the substance is handled.

7.1. Precautions for safe handling

- 7.1.1. Observing all government regulations.
- 7.1.2. Use with adequate exhaust ventilation to draw dust away from workers' breathing zones.
- 7.1.3. Prevent or minimize to dusts by using appropriate respirators, gloves and eye protection.
- 7.1.4. Wash exposed skin areas thoroughly with soap and water after handling.

7.2. Conditions for safe storage

Storage Temperature: Ambient. Avoid storing at high temperatures.
 Storage Pressure: Atmospheric.

MULTI-MIX® MM-6000 should be stored in a closed dry container.

Product should be protected from exposure to light.

Specific end use(s): No further relevant information is available.

Not suitable Package Materials:

Porous materials allowing contact with water, air, and contaminants contained therein.

Packaging

Always keep in packaging made of an identical material to the original.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure limits

Component	OSHA PEL	ACGIH TLV	REL
Calcium Hydroxide	15* 5** mg/m ³	5 mg/m ³	5 mg/m ³
Potassium Hydroxide	2 mg/m ³	C2*** mg/m ³	C2*** mg/m ³
Sodium Hydroxide	2 mg/m ³	C2*** mg/m ³	C2*** mg/m ³

* total dust
 ** respirable fraction
 *** short-term value

8.2. Exposure controls

Use local exhaust ventilation to control emissions near the source. Ventilation systems should be sized and configured to prevent exceeding recommended or regulated exposure limits. Handle in a well-ventilated area.

If risk of overexposure exists, wear an approved respirator. Provide adequate ventilation in warehouse or closed storage area.

8.3. Personal protection measures, such as personal protective equipment

Use of NOISH approved particulate filter is recommended if dust is generated in handling. The usual precautionary measures for handling chemicals should be followed.

8.4.1. Eye protection: Safety glasses or goggles with side shields;

8.4.2. Skin protection: Rubber or plastic gloves and wear appropriate dust resistant clothing, full covers arms and legs.

8.4.3. Respiratory protection: NOISH approved dust mask

8.4.4. General hygiene considerations: Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	Solid granules	Color	Off-white
Odor	Characteristic	Odor threshold	None
pH	9.5 (<10% suspension)	Specify Gravity	Packed density 0.8g/cc
Vapor pressure (mm)	Not determined	Vapor Density (Air=1)	Not determined
Evaporation Rate	Not determined		
Boiling point (°C)	Not determined	Freezing Point (°C)	Not applicable
Solubility in Water (20°C)	Slightly soluble	% Volatile (by volume)	Not applicable
Coefficient of Water / oil Distribution	Not determined	Flash point (°C)	Not applicable
Upper explosion limit (% by volume)	Not applicable	Lower explosion limit (% by volume)	Not applicable
Explosive power	Not applicable	Sensitivity to static discharge	Not applicable

SECTION 10: STABILITY AND REACTIVITY

Thermal decomposition: No decomposition if used according to specifications.

Possibility of hazardous reactions: May react with trichloroethylene, producing dichloroacetylene, Carbene monoxide and phosgene.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: None.

Additional information: See section 7 for information on handling, storage and conditions to be avoided.

SECTION 11: TOXICOLOGICAL INFORMATION

This material is non-toxic in its original state.

11.1. Effects of acute exposure to products

Toxicological studies: LD₅₀ on finished product (Specify species and route): Not determined
LC₅₀ on finished product (Specify species and route): Not determined

11.2. Effects of chronic exposure to products: Not determined

Irritation: May be corrosive. Irritation is possible due to corrosive and abrasive action of dust.

Mutagenicity: Not determined on this finished product

Carcinogenicity: Not determined on this finished product

Reproductive toxicant: Not determined on this finished product

Specific target organ systemic toxicity – single exposure: Not determined on this finished product

Specific organ systemic toxicity – repeated exposure: Not determined on this finished product

SECTION 12. ECOLOGICAL INFORMATION

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential: Does not accumulate in organisms.

Additional ecological information:

General notes: slightly hazardous for water

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from residues: Spent media that has removed toxic chemicals should be examined for specific hazards. Local regulations should always be consulted and followed.

SECTION 14. TRANSPORTATION INFORMATION

LAND

DOT Regulations:

UN/NA Identification Number: None on finished product

UN-Proper Shipping Name: Not Regulated

Transport Hazard Class: None on finished product

Packing Group: None on finished product

Marine Pollutant: None on finished product

WATER

IMO/IMDG:

UN/NA Identification Number: None on finished product

UN-Proper Shipping Name: Not Regulated

Transport Hazard Class: None on finished product

Marine Pollutant: None on finished product

AIR

ICAO/IATA:

UN/NA Identification Number: None on finished product

UN-Proper Shipping Name: Not Regulated

Transport Hazard Class: None on finished product

Packing Group: None on finished product
Marine Pollutant: None on finished product
Information reported for product/size: 0.5 kg

SECTION 15. REGULATORY INFORMATION

SARA Title III 302	All ingredients are not subject to SARA Title III, section 302 regulation.
SARA Title III 313	All ingredients are not subject to SARA Title III, section 313 regulation.
TSCA	All ingredients are listed.
California Proposition 65	All ingredients are not listed.
Canadian Classification	WHMIS: All ingredients are classified with hazard codes: D2B and E.
Risk and Safety Phrases	R22: Harmful if swallowed. R36: Irritating to eyes. R37: Irritating to respiratory system. R38: Irritating to skin.

SECTION 16. OTHER INFORMATION

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.

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Date prepared: February 18, 2014

DISCLAIMER: In Canada, regulatory authorities have agreed to allow the use of the 16-heading format, provided that all of the MSDS information required under the Controlled Products Regulations is included and that a statement on the MSDS indicated that (1) the product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and (2) the MSDS contains all the information required by those regulations.